

IN THE CLAIMS:

1. (Currently Amended) A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a substance for shifting a recorded wavelength to the volume hologram layer is contained in the first and/or the second adhesive layer(s), a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the layers, the substance being a tackifier having a molecular weight of 100 to 5,000, neither adhesive layer contains a heat-sealing agent, and the volume hologram laminate is produced by heat-treatment of the laminate during a production process therefor thereby shifting the tackifier from the adhesive layer in which the tackifier is contained to the volume hologram layer.

2. (Currently Amended) A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a substance for shifting a recorded

wavelength to the volume hologram layer is contained in either one of the first and the second adhesive layers, the substance is not contained in the other adhesive layer, a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the layers, the substance being a tackifier having a molecular weight of 100 to 5,000, neither adhesive layer contains a heat-sealing agent, and the volume hologram laminate is produced by heat-treatment of the laminate during a production process therefor thereby shifting the tackifier from the adhesive layer in which the tackifier is contained to the volume hologram layer.

3. (Canceled)

4. (Currently Amended) A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a film for shifting a recorded wavelength is put between the first adhesive layer and the volume hologram layer or between the second adhesive layer and the volume hologram

layer, a substance for shifting a recorded wavelength to the volume hologram layer is contained in one of the adhesive layers without the film, a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the respective adhesive layer and the film as well as between the adhesive layer and the volume hologram layer, the substance being a tackifier having a molecular weight of 100 to 5,000, neither adhesive layer contains a heat-sealing agent, and the volume hologram laminate is produced by heat-treatment of the laminate during a production process therefor thereby shifting the tackifier from the adhesive layer in which the tackifier is contained to the volume hologram layer.

5. (Previously Presented) A volume hologram laminate according to Claim 1, wherein the first and/or second adhesive layer(s) is a crosslinking two component adhesive that is crosslinked at the time of use by addition of a crosslinking agent.

6. (Previously Presented) A volume hologram laminate according to Claim 1, wherein the volume hologram layer comprises

Serial No. 09/288,569

a photopolymerizable compound and the layer is recorded holographically.

7. (Canceled)

8. (Currently Amended) A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a substance for shifting a recorded wavelength to the volume hologram layer is contained in the first and/or the second adhesive layer(s), a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the layers, the substance being a tackifier having a molecular weight of 100 to 5,000, neither adhesive layer contains a heat-sealing agent, and the volume hologram laminate is produced by heat-treatment of the laminate during a production process therefor thereby shifting the tackifier from the adhesive layer in which the tackifier is contained to the volume hologram layer.

9. (Currently Amended) A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a substance for shifting a recorded wavelength to the volume hologram layer is contained in either one of the first and the second adhesive layers, the substance is not contained in the other adhesive layer, a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the layers, the substance being a tackifier having a molecular weight of 100 to 5,000, neither adhesive layer contains a heat-sealing agent, and the volume hologram laminate is produced by heat-treatment of the laminate during a production process therefor thereby shifting the tackifier from the adhesive layer in which the tackifier is contained to the volume hologram layer.

10. (Canceled)

11. (Currently Amended) A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram

layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a film for shifting a recorded wavelength is put between the first adhesive layer and the volume hologram layer or between the second adhesive layer and the volume hologram layer, a substance for shifting a recorded wavelength to the volume hologram layer is contained in one of the adhesive layers without the film, a reproduced wavelength of hologram recorded in the volume hologram layer is controlled with shifting the substance between the respective adhesive layer and the film as well as between the adhesive layer and the volume hologram layer, the substance being a tackifier having a molecular weight of 100 to 5,000, neither adhesive layer contains a heat-sealing agent, and the volume hologram laminate is produced by heat-treatment of the laminate during a production process therefor thereby shifting the tackifier from the adhesive layer in which the tackifier is contained to the volume hologram layer.

12. (Currently Amended) A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive

layer and a surface protecting film formed on a substrate in the described order, wherein a substance with a refractive index lower than that of the volume hologram layer for shifting a recorded wavelength is contained in the first and/or the second adhesive layer(s), a reproduced wavelength of hologram recorded in the volume hologram layer is shifted to a short wavelength side, the substance being a tackifier having a molecular weight of 100 to 5,000, neither adhesive layer contains a heat-sealing agent, and the volume hologram laminate is produced by heat-treatment of the laminate during a production process therefor thereby shifting the tackifier from the adhesive layer in which the tackifier is contained to the volume hologram layer.

13. (Original) A volume hologram laminate according to Claim 12, wherein the refractive index of the substance for shifting a recorded wavelength is at least 0.1 at 25°C lower than that of the volume hologram layer.

14. (Canceled)

15. (Currently Amended) A volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a substrate in the described order, wherein a substance with a refractive index higher than that of the volume hologram layer for shifting a recorded wavelength is contained in the first and/or second adhesive layer(s), a reproduced wavelength of hologram recorded in the volume hologram layer is shifted to a long wavelength side, the substance being a tackifier having a molecular weight of 100 to 5,000, neither adhesive layer contains a heat-sealing agent, and the volume hologram laminate is produced by heat-treatment of the laminate during a production process therefor thereby shifting the tackifier from the adhesive layer in which the tackifier is contained to the volume hologram layer.

16. (Original) A volume hologram laminate according to Claim 15, wherein the refractive index of the substance for shifting a recorded wavelength is at least 0.06 at 25°C higher than that of the volume hologram layer.



17. (Original) A volume hologram laminate according to Claim 15, wherein the substance for shifting a recorded wavelength is at least one of aromatic compounds, rosin type tackifiers, terpene type tackifiers and synthetic resin type tackifiers.

18. (Previously Presented) A volume hologram laminate according to Claim 12, wherein the first and/or second adhesive layer(s) is formed of a crosslinking type two component adhesive that is crosslinked at the time of use by addition of a crosslinking agent.

19. (Previously Presented) A volume hologram laminate according to Claim 12, wherein a volume hologram layer comprises a photopolymerizable compound and the layer is recorded holographically.

20. (Currently Amended) A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a

substance with a refractive index lower than that of the volume hologram layer for shifting a recorded wavelength is contained in the first and/or the second adhesive layer(s), a reproduced wavelength of hologram recorded in the volume hologram layer is shifted to a short wavelength side, the substance being a tackifier having a molecular weight of 500 to 1,000, neither adhesive layer contains a heat-sealing agent, and the volume hologram laminate is produced by heat-treatment of the laminate during a production process therefor thereby shifting the tackifier from the adhesive layer in which the tackifier is contained to the volume hologram layer.

21. (Currently Amended) A label for preparation of a volume hologram laminate having a first adhesive layer, a volume hologram layer, a second adhesive layer and a surface protecting film formed on a release liner sheet in the described order, wherein a substance with a refractive index higher than that of the volume hologram layer for shifting a recorded wavelength is contained in the first and/or the second adhesive layer(s), a reproduced wavelength of hologram recorded in the volume hologram layer is

Serial No. 09/288,569

shifted to a long wavelength side, the substance being a tackifier having a molecular weight of 100 to 5,000, neither adhesive layer contains a heat-sealing agent, and the volume hologram laminate is produced by heat-treatment of the laminate during a production process therefor thereby shifting the tackifier from the adhesive layer in which the tackifier is contained to the volume hologram layer.

22. to 29. (Canceled)